EXHIBIT 5

Cambridge Analytical Associates
1106 Commonwealth Avenue / Boston, Massachusetts 02215 / (617) 232-2207

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FINAL REPORT

John J. Riley
228 Salem Street
Woburn, MA 01801
Attn: Dick Jones

PROJECT NUMBER: J-274

CAMBRIDGE ANALYTICAL ASSOCIATES, INC.

REPORT NUMBER: 84-1216

PREPARED BY: Keith A. Hausknecht

DATE PREPARED: November 21, 1984
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TABLE OF CONTENTS

1. INTRODUCTION

This report summarizes results of chemical analyses performed on samples received by CAA on October 11, 1984. Analytical methods employed for these analyses are described in Section 2 and results are presented in Section 3. The last section contains quality control data and certifications supporting the analytical results.

2. ANALYTICAL METHODS

Analytical methods utilized for sample analysis are summarized in Table 1. For analysis of EP toxicity, the sample was extracted according to methods specified by EPA (1982). The leachate was then analyzed for metals according to methods of EPA (1979, 1982) and ASTM (1980). Water samples were acidified and analyzed by furnace atomic absorption spectrophotometry.

3. RESULTS

Results of EP toxicity analyses are presented in Table 2. The finished leather trimmings exceeded the MCL for total chromium, but hexavalent chromium levels were below the MCL. All other samples were EP non-toxic. Water samples (Table 3) contained undetectable levels of metals.

Table 1. Summary of Analytical Methods

Constituent	Method Reference	Method Description
Metals		
Sample Preparation (EP toxicity)	Method 1310 (1)	EP test
Instrumental Analysis (EP Test)		
Cadmium (Cd)	Method 213.1/2 (2)	FAAS; GFAAS
Chromium (Cr) (total)	Method 218.1/2 (2)	FAAS; GFAAS
Lead (Pb)	Method 239.1/2 (2)	FAAS; GFAAS
Chromium (Cr) (hexavalent)	Method D1687-80 (3)	Colorimetric, diphenylcarbazide

(1)U.S. EPA. 1982a. Test Methods for Evaluating Solid Waste-Physical/Chemical Methods. SW-846. Office of Solid Waste, U.S. EPA, Washington, D.C.

(2)U.S. EPA. 1979. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020 (Revised, March 1983). EPA/EMSL, Cincinnati, Ohio.

(3)ASTM. 1981. Annual Book of ASTM Standards. Part 31-Water. American Society for Testing and Materials. Philadelphia, PA 19103.

GFAAS - Graphite furnace atomic absorption spectrophotometry
ICP - Inductively coupled argon plasma emission spectroscopy
FAAS - Flame atomic absorption spectrometry

Table 2. Results of EP Toxicity Analyses

Client: John J. Riley
Project No: 84-1216

Constituent	Maximum Contaminant Level (MCL)[a]	Client ID:	Sludge/Soil-Old Lagoons 8406751	Sludge-Back of Catch Basin 8406752
Metals (mg/l)				
Cadmium	1.0		<0.02	<0.02
Chromium	5.0		<0.05	0.27
Total Hexavalent Chromium	5.0		<0.05	<0.05
Lead	5.0		<0.2	<0.2

[a]EPA(1982a)

Table 3. Results of Surface Water Analyses

Client: John J. Riley
Project Number: 84-1216

Constituent	Client ID: / CAA ID:	Well #1 / 8406755
Cd (mg/l)		<0.001
Cr (total-mg/l)		<0.005
Cr (hexavalent-mg/l)		<0.05
Pb (mg/l)		<0.005

Table 4. Quality Control Data for Inorganic Analysis - Spike Recoveries and Reference Standards

Constituent	Client ID CAA ID	Concentration (ppm) Theoretical Value	Observed Value	Recovery (%)
Cd	Check Standard (EPA 475 #6)	0.070	0.071	101
	Check Standard (NBS 1643a)	0.010	0.011	110
	8406751-Spike	0.50	0.50	100
	8406752-Spike	0.50	0.51	102
	8406753-Spike	0.50	0.51	102
	8406754-Spike	0.50	0.53	106
	8406755-Spike	.0050	0.0056	112
Cr (total)	Check Standard (EPA 475 #6)	0.250	0.230	92
	Check Standard (NBS 1643a)	0.015	0.013	89
	8406751-Spike	3.3	2.8	85
	8406752-Spike	3.3	2.7	82
	8406753-Spike	3.3	3.0	91
	8406754-Spike	3.3	4.3	130
	8406755-Spike	0.050	0.049	98
Pb	Check Standard (EPA 475 #6)	0.40	0.39	98
	Check Standard (NBS 1643a)	0.027	0.025	93
	8406751-Spike	5.0	4.7	94
	8406752-Spike	5.0	4.9	98
	8406753-Spike	5.0	4.9	98
	8406574-Spike	5.0	5.0	100
	8406755-Spike	0.050	0.051	102

4. QUALITY ASSURANCE DOCUMENTATION

4.1 Quality Control Data

Quality control data associated with these analyses are summarized in Table 4. These results consist of recoveries of spikes from analyte solutions and analyses of reference standards used to verify the accuracy of instrument calibration.

4.2 Certification

This work has been checked for accuracy by the following staff personnel:

Director, Inorganic
Chemistry Laboratory

Keith A. Hausknecht